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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) $2,090.00

Complete if Known	
Application Number	10/083,842
Filing Date	02/27/02
First Named Inventor	Jonas Grinas
Examiner Name	Rao, Deepak R.
Art Unit	1638
Attorney Docket No.	50097USNP

METHOD OF PAYMENT (check all that apply)

☐ Check ☑ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☑ Deposit Account Deposit Account Number: 50-1744 Deposit Account Name: Syngenta

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☑ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☑ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☑ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	FILING FEES Small Entity Fee ($)	SEARCH FEES Fee ($)	SEARCH FEES Small Entity Fee ($)	EXAMINATION FEES Fee ($)	EXAMINATION FEES Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - 20 or HP =	_____	x _____	= _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - 3 or HP =	_____	x _____	= _____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims Fee ($)	Fee Paid ($)
_____	_____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee ($)	Fee Paid ($)
_____ - 100 =	_____	/ 50 = _____ (round up to a whole number)	x _____	= _____

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	
Other (e.g., late filing surcharge): Appeal Brief ($500.00) (4 month extension $1,590.00)	2,090.00

SUBMITTED BY

Signature	[signature]	Registration No. (Attorney/Agent) 36,063	Telephone 919-541-8587
Name (Print/Type)	Michael E. Yates		Date June 9, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Art Unit: 1638
Jonas Grina	Attorney Docket: 50097USNP
Appl. No. 10/083,842	Examiner: Rao, Deepak R.
Filed: February 27, 2002	Confirmation No: 2780

For: Novel Cyanoenamines Useful As Ligands For Modulating Gene Expression In Plants or Animals

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

APPELLANT'S BRIEF UNDER 37 CFR §41.37

Sir:

Responsive to the Advisory Action of June 6, 2005 Applicant respectfully presents this appeal brief.

An extension of time of 4 months from December 9, 2004 is respectfully petitioned, and the fee for filing this brief is also paid. Please charge any required fees, or credit any overpayment to the Syngenta Biotechnology, Inc. Deposit Account No. 50-1744.

REAL PARTY IN INTEREST

Syngenta Participations AG is the real party in interest in the present matter.

RELATED APPEALS AND INTERFERENCES

None

STATUS OF THE CLAIMS

Claim 1-28 are pending. Claims 15-28 were withdrawn from consideration. Claims 1, 2, 5-8 and 11-13 were allowed, and Claims 3, 4, 9, 10 and 14 are rejected under the Final Office action dated June 17, 2004.

STATUS OF THE AMENDMENTS

No amendments were entered in view of the Amendment After Final filed on September 17, 2004

CLAIMED SUBJECT MATTER

The present invention relates generally to novel compounds that are useful as ligands for modulating gene expression in living organisms, including plants and animals. More particularly, the present invention relates to compounds that are cyanoenamines that are useful as non-steroidal ligands for modulating exogenous gene expression in eukaryotic organisms, and particularly chlorophyll-containing plants.

ISSUES

Whether the amendments presented in the Reply filed September 17, 2004 address the 35 U.S.C. §112, second paragraph rejections that "the substituants on R2 and R3 are joined to form cyclic structures on adjacent atoms of said aromatic ring" and whether the amendments address a lack of antecedent basis for the recitation in Claim 9 of "said tantomeric compound is lactone."

GROUPING OF CLAIMS

All claims stand or fall together.

ARGUMENT

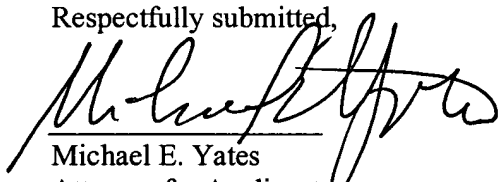
Applicant has taken the position that the specification is clear, at page 13, that the substituants R2 and R3 can be ("may also be") joined to form cyclic structures on adjacent carbon atoms of the aromatic ring. The Examiner states that "may also be" means "in addition to the substituants provided for R2 and R3, but this is not correct. What is taught is clearly that appropriate R2 and R3 substituants can be joined to form cyclic structures, including but not limited to 1,2 – methlenedioxy and 1,2-difluoron methylenedioxy as in Claim 4, and also for example the species in Claim 14, as depicted by the Examiner at page 3 of the Advisory Action of June 6, 2005. The Examiner appears to look to Applicant to provide additional disclosure for compounds with which R2 and R3 can form cyclic substituents, but Applicant respectfully submits that this is in contradiction to the teaching of the specification. The proposed amendments to the claim (Claim 3) clearly address this, and no antecedent basis issues need to be addressed.

The same principle applies with regard to the Examiner's argument in connection with the recitation of "said tantomeric compound is lactone" in Claim 9. Claim 1 recites, at the last line of the claim, "or tautomers thereof." Claim 8 depends from Claim 1, and Claim 9 from Claim 8. Claim 8 therefore recites, through its dependency from Claim 1, tautomeric structures, and Claim 9 further limits that recitation by reciting a lactone. In fact, Applicant submits that the Examiner's reference to page 13 of the specification, where formation of a lactone is disclosed, seems to support rather than refute the antecedent basis in Claims 1 and 8 for the recitation in Claim 9.

CONCLUSION

Applicant respectfully submits that the amendments presented in the Reply Under 37 CFR §1.116 on September 17, 2004 addressed the Examiner's grounds for rejection that were maintained, and should have been entered. Applicant respectfully requests that the Examiner be directed to enter these amendments and to allow the remaining claims.

Respectfully submitted,



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3054 Cornwallis Road
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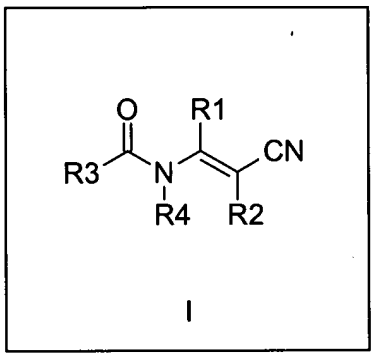
Telephone: 919-541-8587
June 9, 2005

Appenedix of Claims:

What is claimed is:

1. (Previously amended) A compound of Formula I



I

wherein:

R1

is a branched chain C3 to C8 alkyl, C3 to C8 cycloalkyl, C4 to C8 alkyl-substituted alkyl, bicycloalkyl, 1-adamantyl, polyhaloalkyl, trialkylsilyl, or substituted phenyl;

R2 and R3

are each independently of the other unsubstituted or substituted aromatic rings, chosen from phenyl, pyridyl, pyrimidinyl, furyl, thiophenyl, pyrazinyl, pyrrolyl, pyrazolyl, 1,2,4-triazolyl, naphthyl, fluorenonyl, xanthenyl, 4-oxo-1,4-dihydro-(1,8)naphthyridinyl, thiazolyl, isothiazolyl, 1,3,4-thiadiazolyl,

benzo-1,2,3-thiadiazolyl, oxazolyl, imidazolyl, quinolinyl, or isoquinolinyl, where a substituent on the rings is one or more chosen independently from hydrogen, C1 to C4 alkyl, alkoxy, alkoxyalkyl, hydroxy, amino, alkylamino, dialkylamino, acylamino, halo, haloalkyl, hydroxyalkyl, dihydroxyalkyl, alkoxycarbonyl, alkylaminocarbonyl, dialkylaminocarbonyl, unsubstituted or substituted alkylphenyl, unsubstituted or substituted phenyl, unsubstituted or substituted phenoxy, nitro, cyano, alkylthio, alkylsulfonyl, aminoalkyl, carboxyalkyl, or sulfonylalkyl;

and

R4

is hydrogen, alkylthio, alkylthioalkyl, alkyloxyalkyl, acyloxyalkyl, alkyl, acyl, trialkylsilyl, and or the salts, stereoisomers, or tautomers thereof.

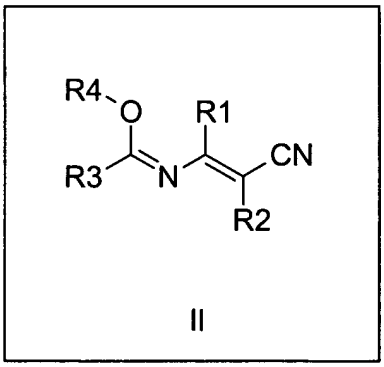
2. (Original) The compound of claim 1, wherein R1 is *tert*-butyl.

3. (Currently amended) The compound of claim 1, wherein ~~at least one of~~ the substituants on R2 and R3 are joined to form cyclic structures on adjacent atoms of said aromatic ring ~~further is substituted with a substituent forming a cyclic structure on adjacent atoms of the aromatic ring~~.

4. (Currently amended) The compound of claim 3, wherein the ~~substituent~~ cyclic structure formed is selected from the group consisting of 1,2-methylenedioxy and 1,2-difluoromethylenedioxy.

5. (Previously amended) The compound of claim 1, wherein R2 is selected from the group consisting of phenyl, 3,5-dimethylphenyl, 2,4-dimethylphenyl, 3-methylphenyl, 4-methylphenyl, and 2-methylphenyl. 6. (Original) The compound of claim 1, wherein R3 is selected from the group consisting of phenyl, 3-pyridyl, 3-methoxy-2-methylphenyl, 3-ethoxy-2-methylphenyl, 3-methoxy-2-ethylphenyl, 4-ethylphenyl, 2,6-difluorophenyl, 2,3-dimethylphenyl, 3-chloro-2-methylphenyl, and 3-bromo-2-methylphenyl.

7. (Previously amended) The compound of claim 1, wherein halo is selected from the group consisting of fluoro, chloro, bromo, and iodo.8. (Original) The

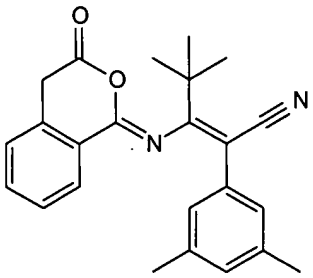


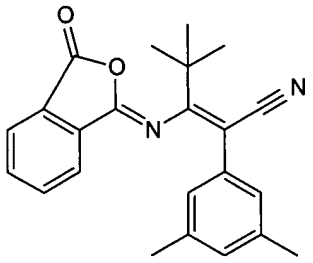
II

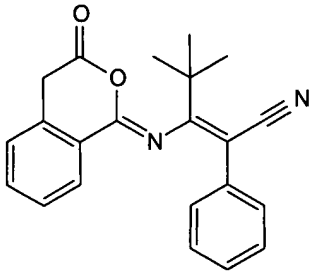
compound of claim I, wherein Formula I is in its tautomeric form as Formula II:

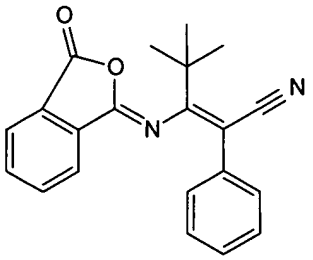
9. (Currently amended) The tautomeric compound of claim 8, wherein said tautomeric compund is ~~R3 and R4 and O together form a cyclic structure resulting in~~ a lactone.

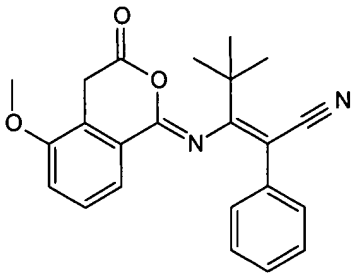
10. (Original) The compound of claim 9, wherein the lactone is selected from the group consisting of:











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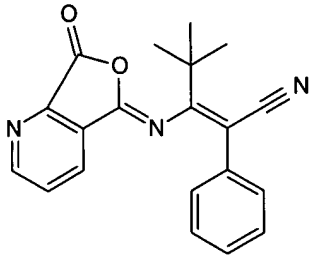
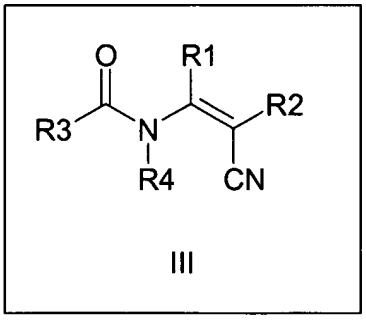


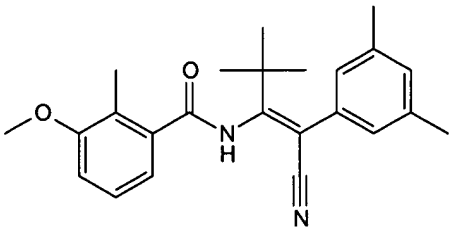
11. (Original) The compound of claim I, wherein Formula I is in its isomeric form as Formula III:



III

12. (Original) The isomeric compound of claim 11, wherein R1 is *tert*-butyl, R2 is 3,5-dimethylphenyl, and R3 is 2-trifluoromethylphenyl or 2-methyl-3-methoxyphenyl.

13. (Original) The isomeric compound of claim 12, wherein the compound is selected from the group consisting of:



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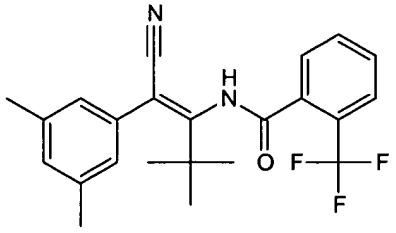
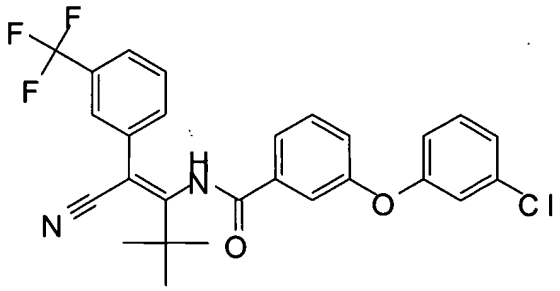
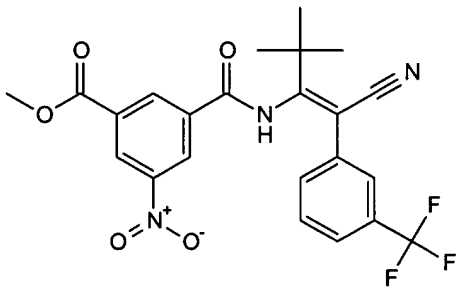
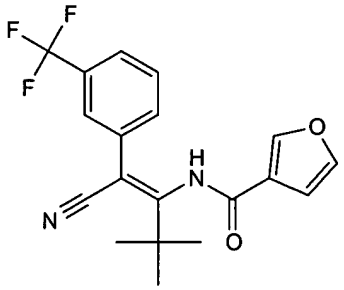
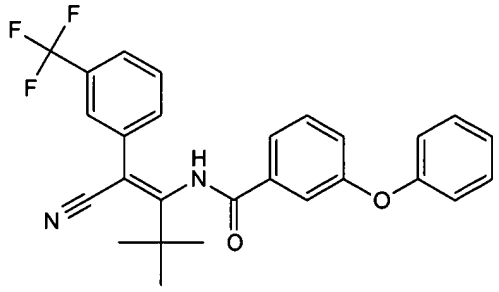


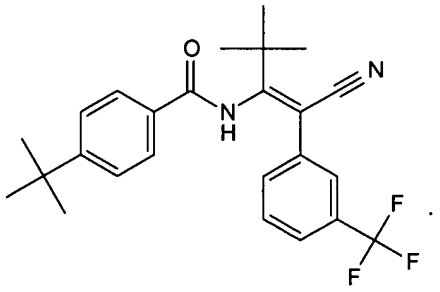
14. (Original) The compound of claim 1, wherein the compound is selected from the group consisting of:

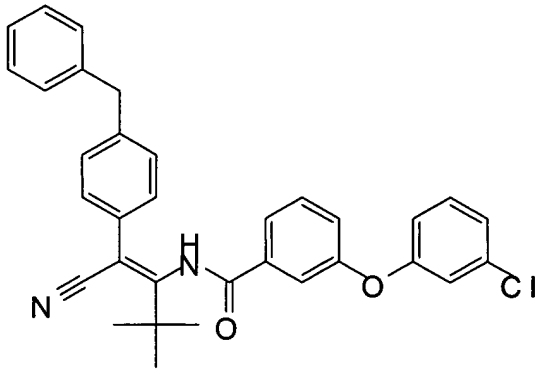


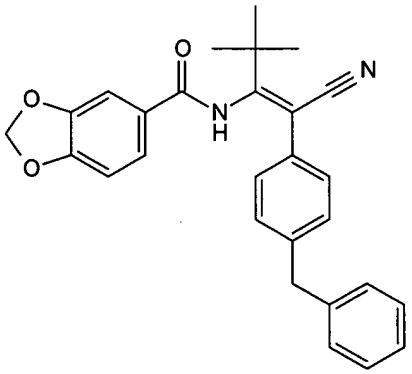


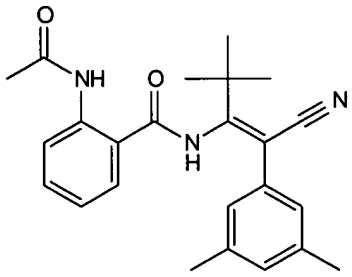


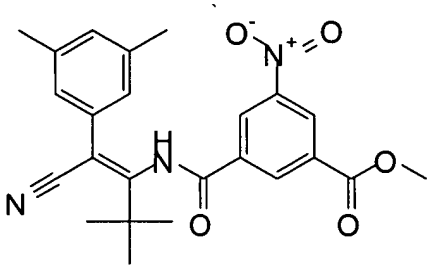


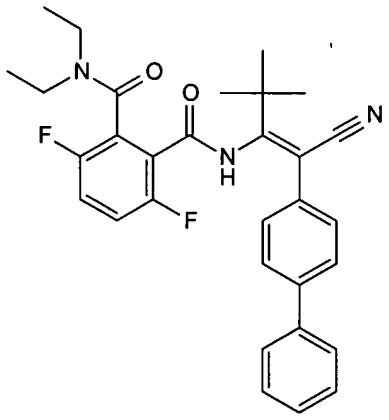








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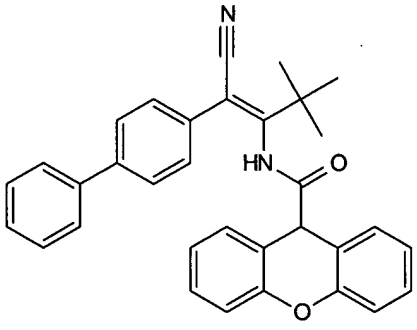
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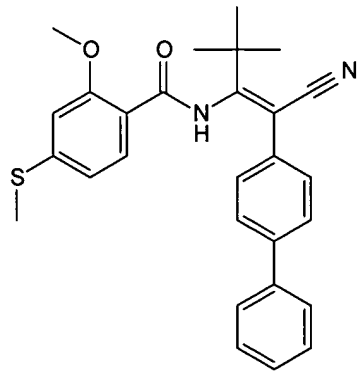
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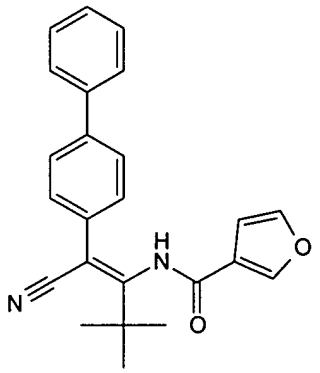
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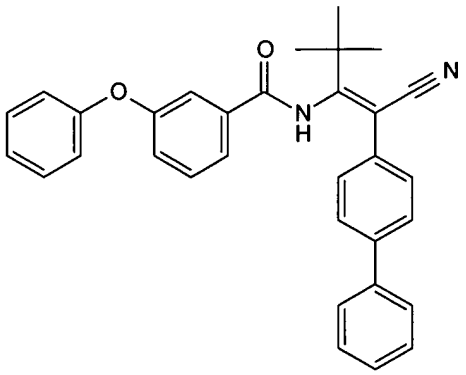
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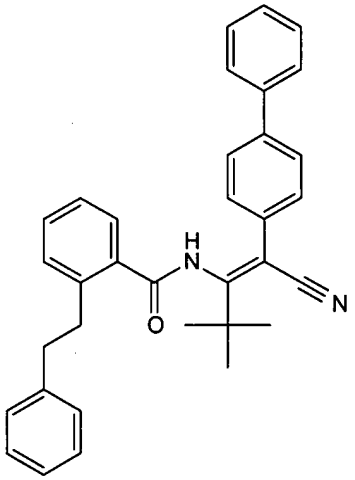
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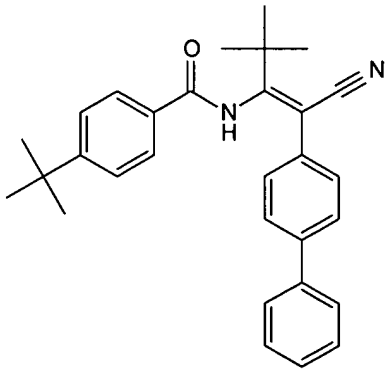
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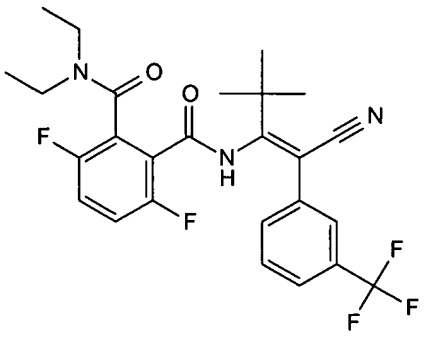

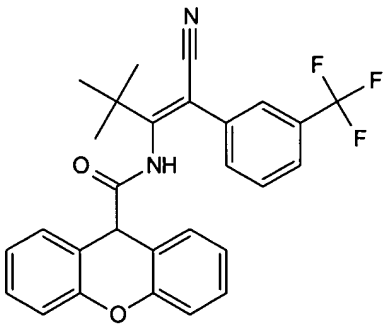

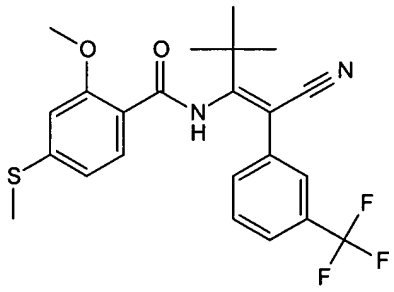

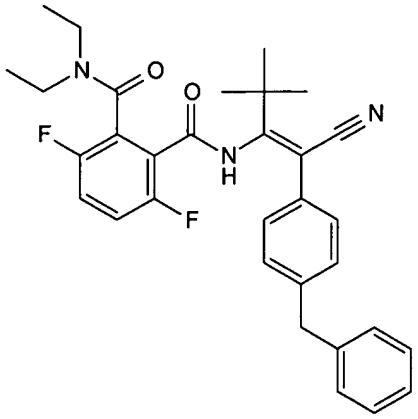
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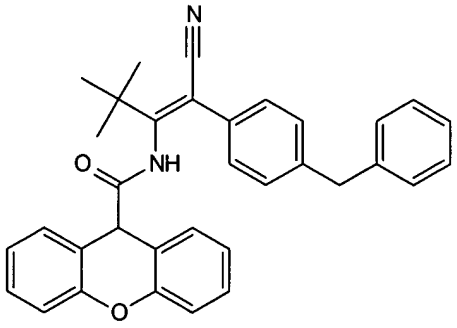
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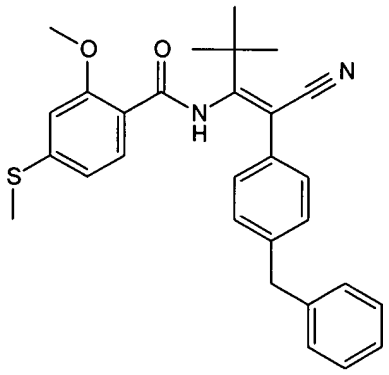
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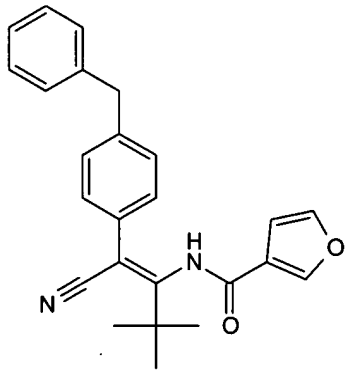
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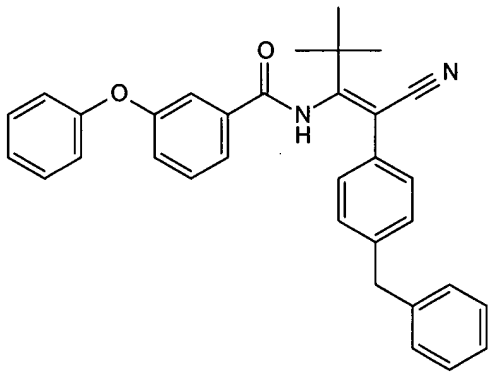
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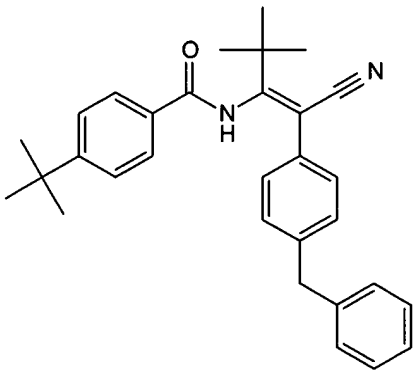
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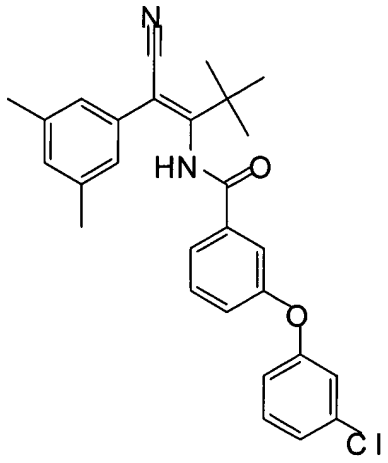
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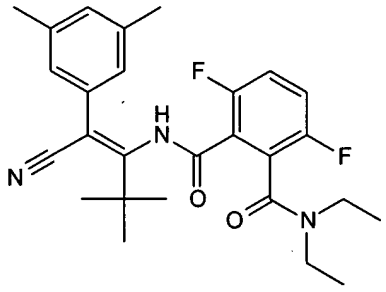
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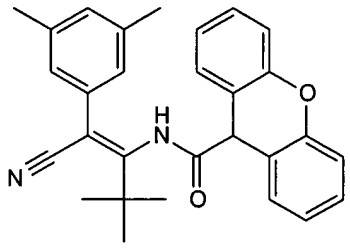
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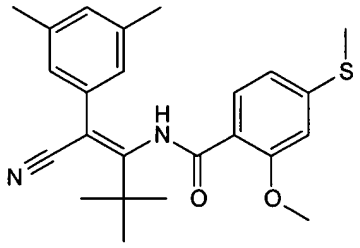
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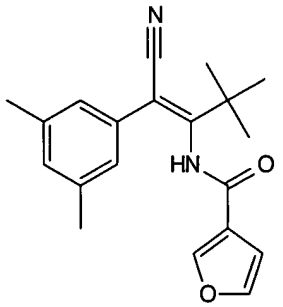
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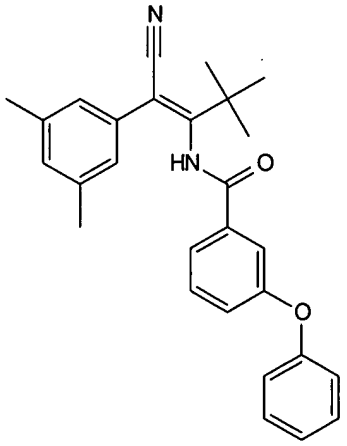
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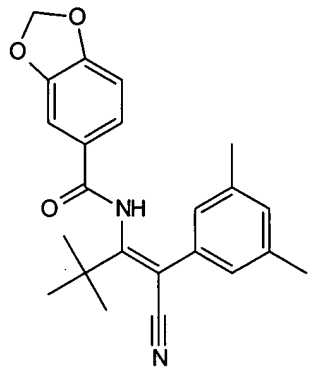

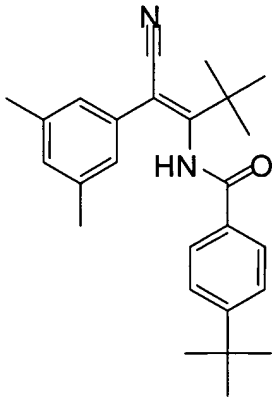

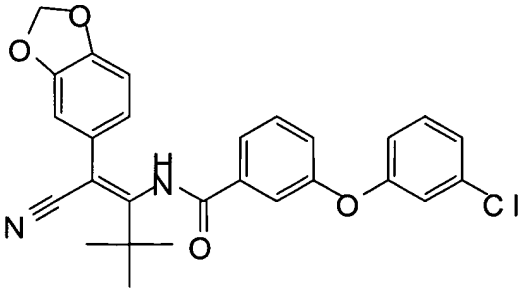

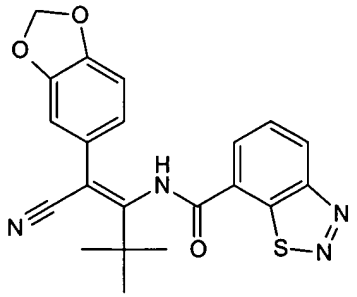

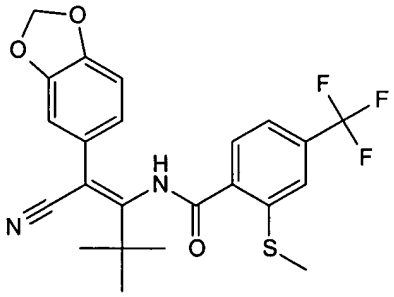

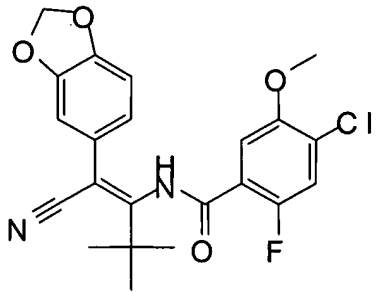

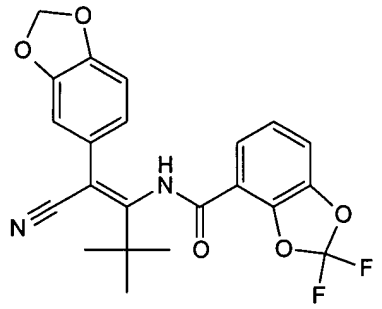

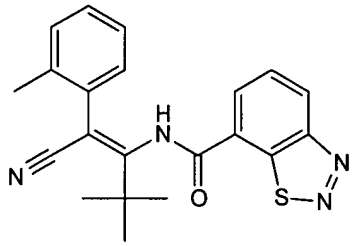

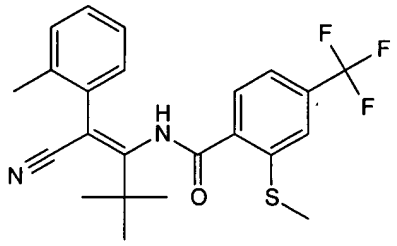

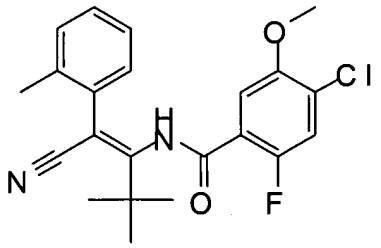
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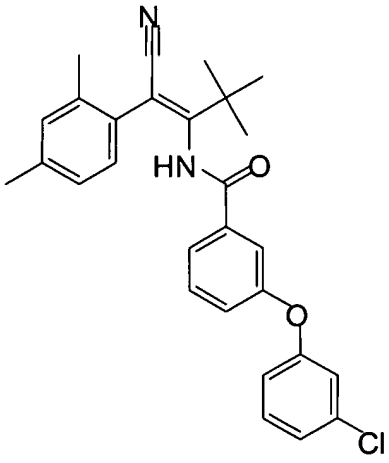
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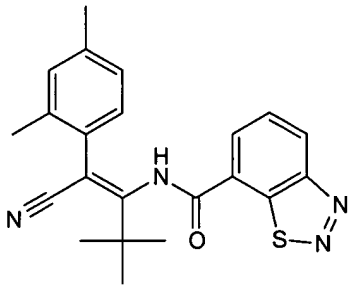
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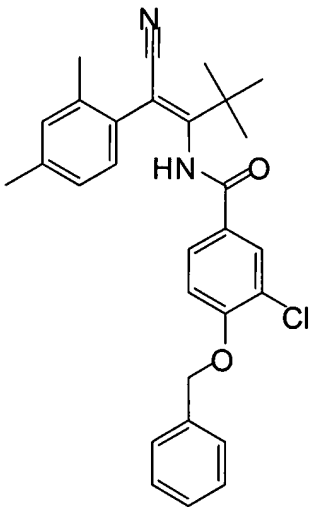
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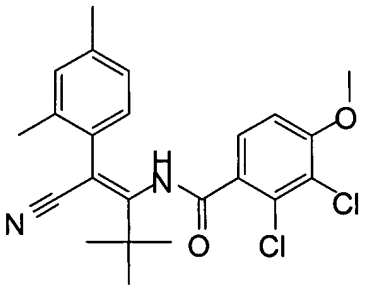
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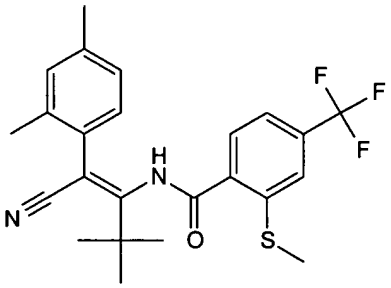
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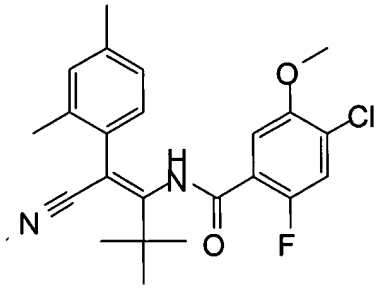
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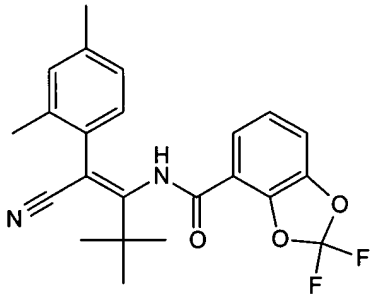
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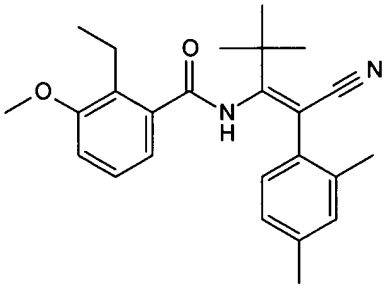
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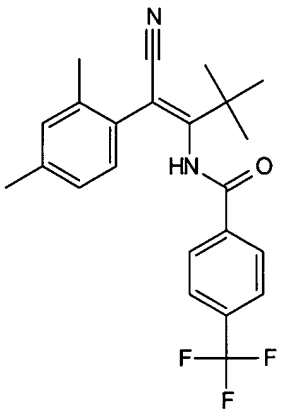
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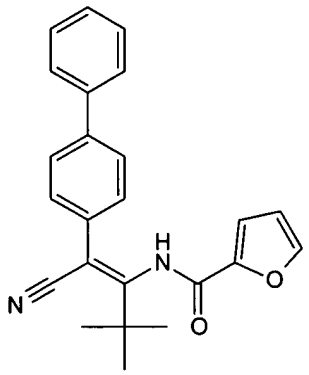
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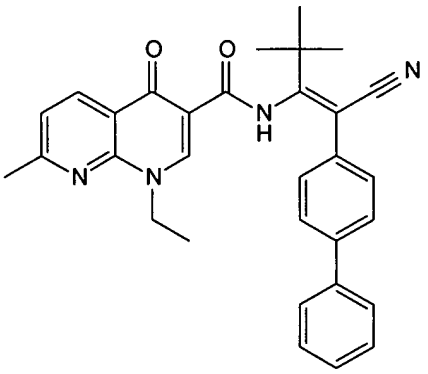
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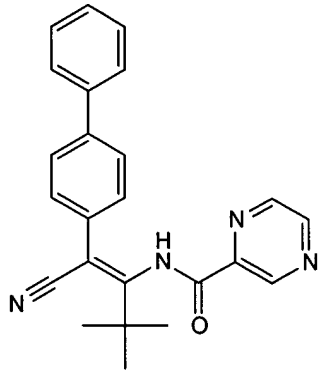

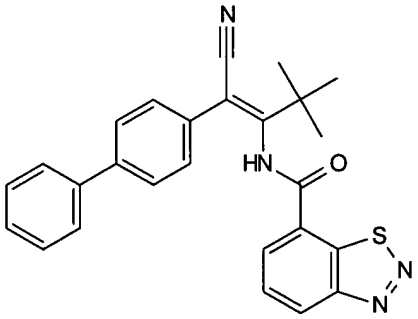

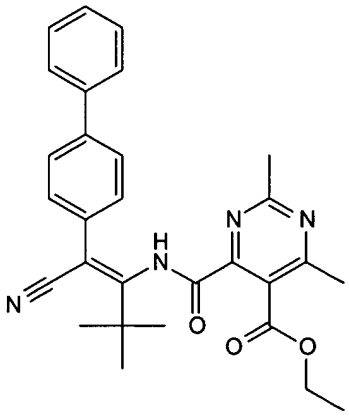

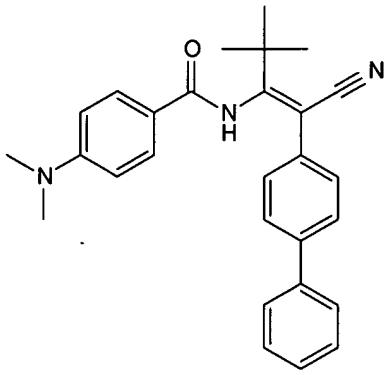

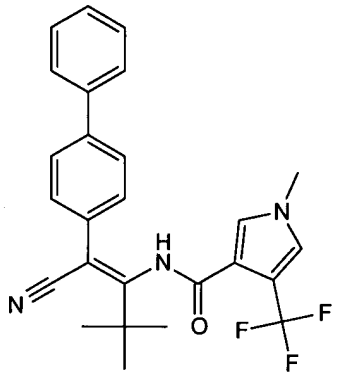

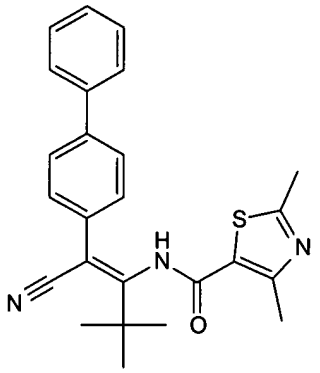

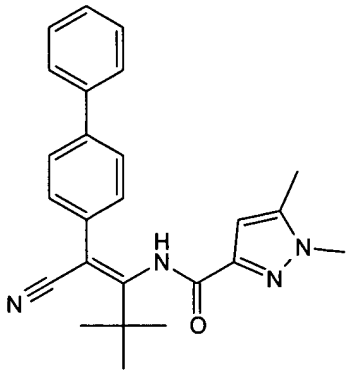
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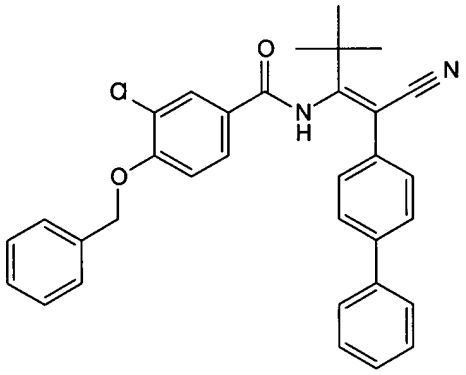
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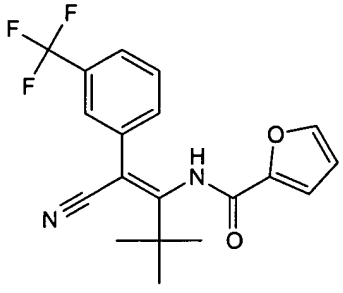
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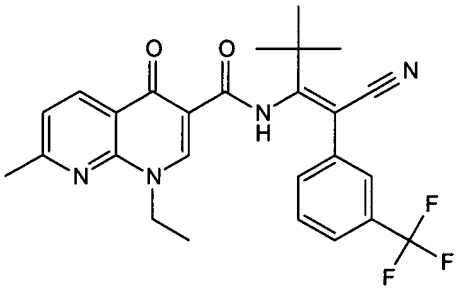

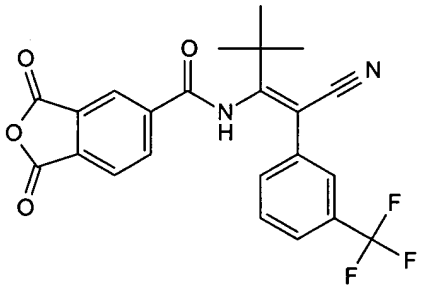

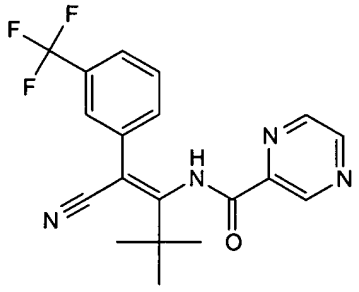

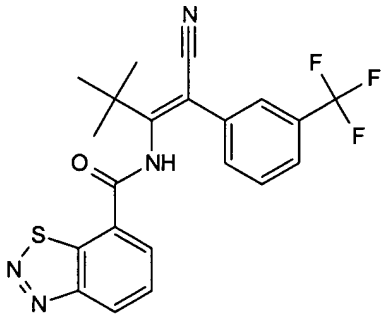

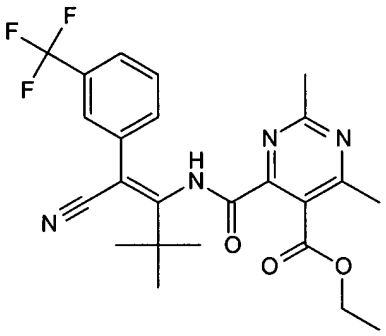

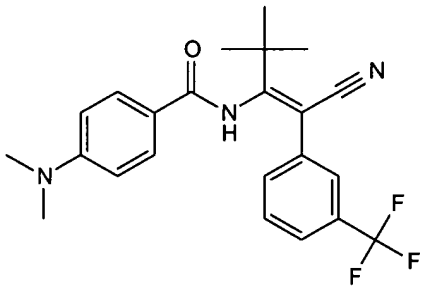

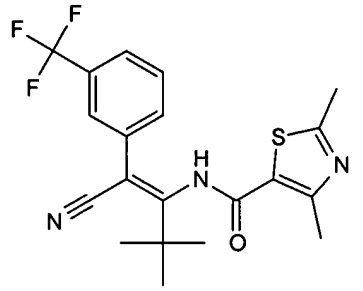

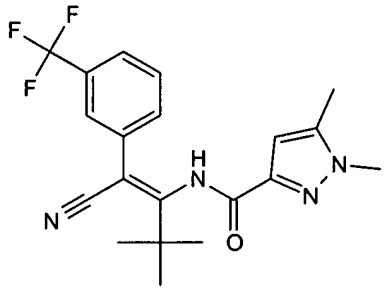

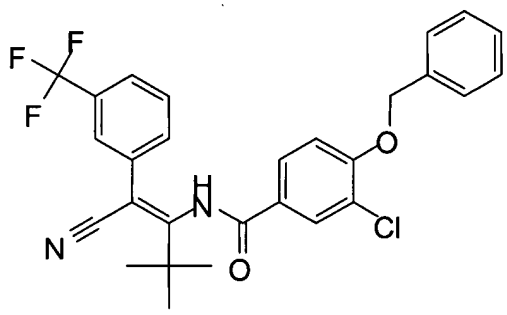

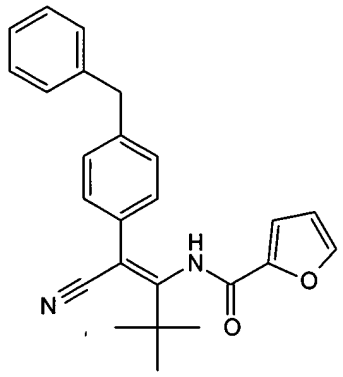
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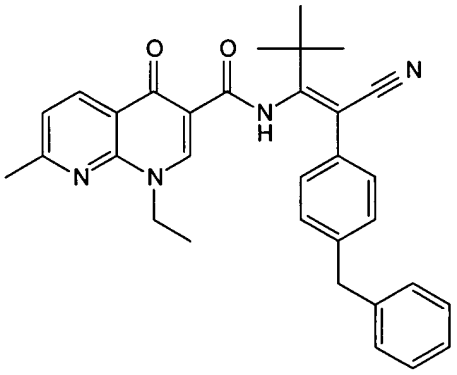
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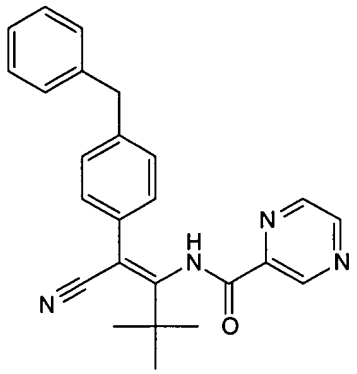
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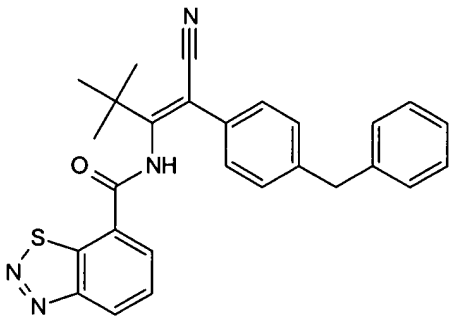
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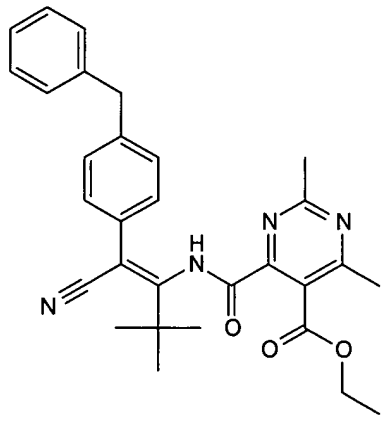
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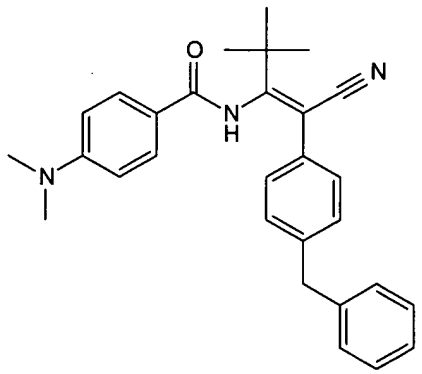
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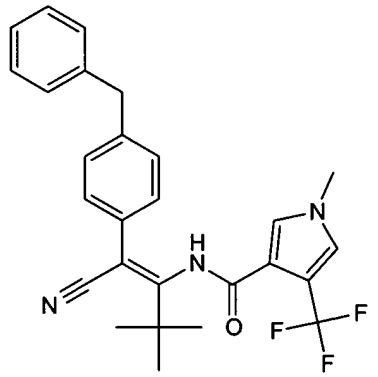

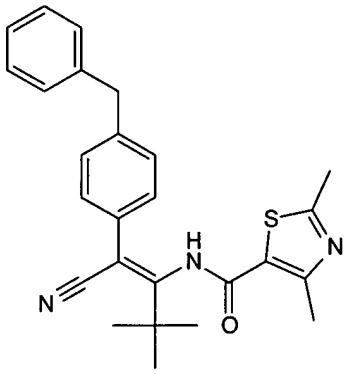

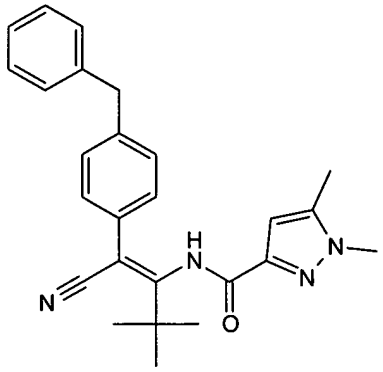

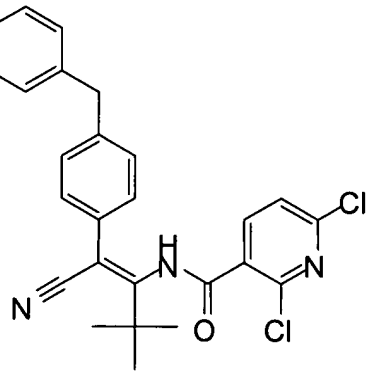
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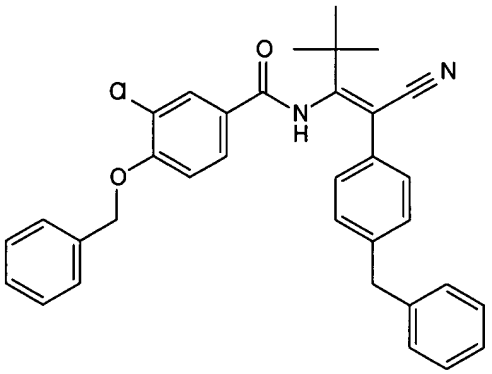
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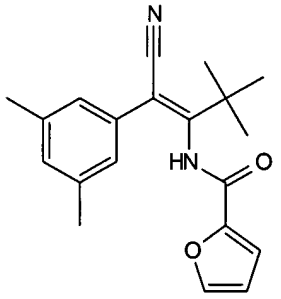
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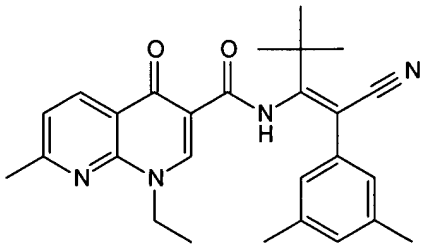

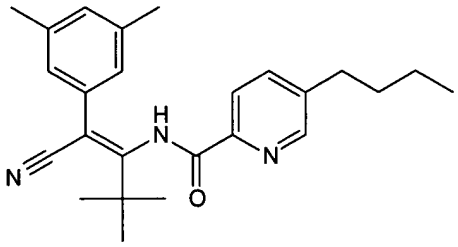

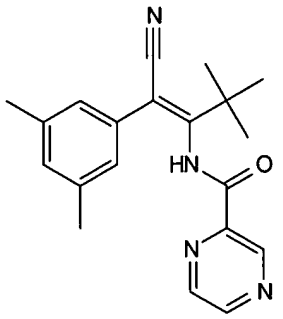

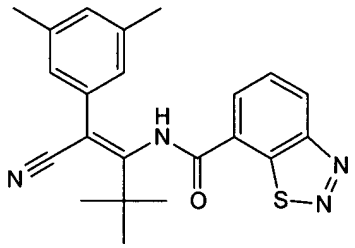

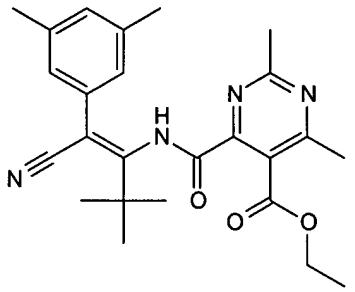

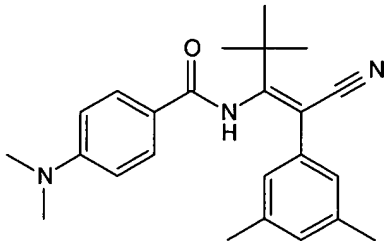

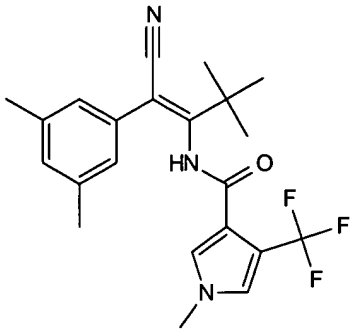

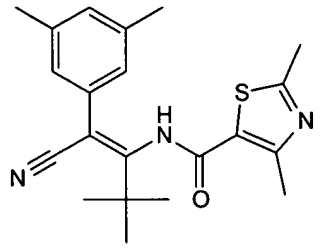

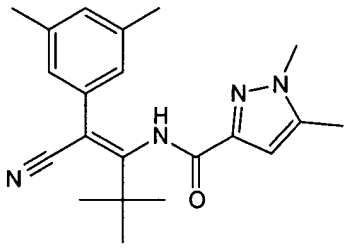

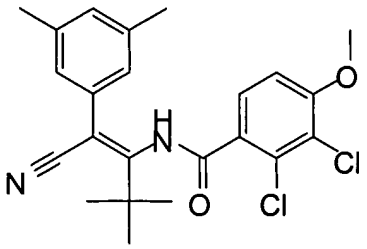
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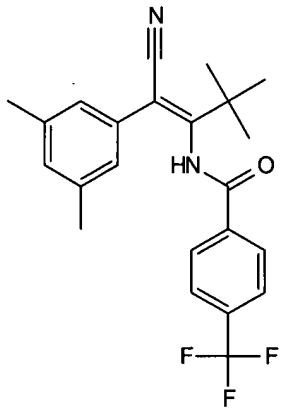
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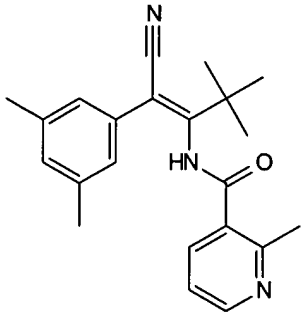
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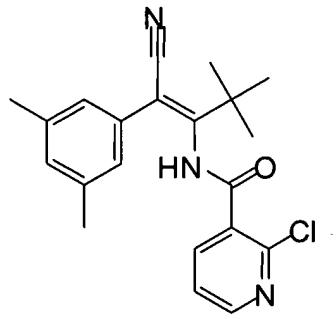
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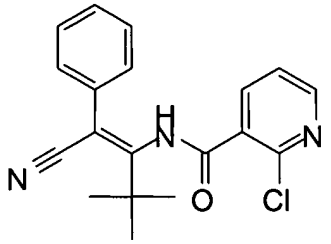
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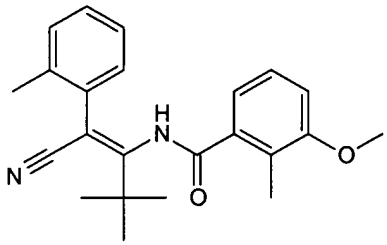
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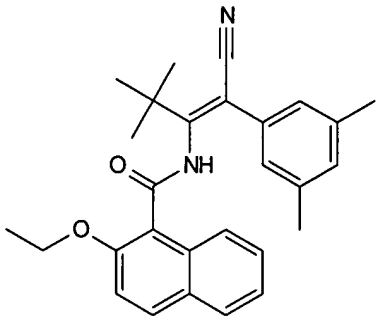
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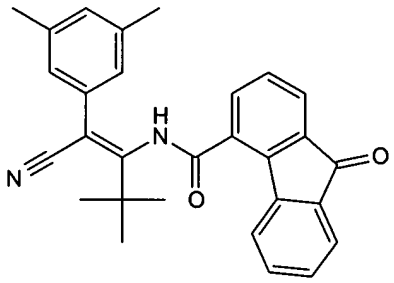
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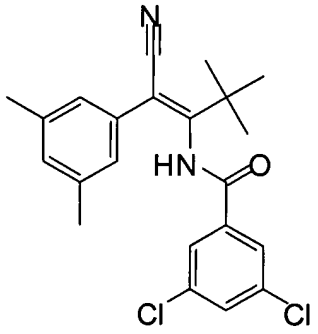
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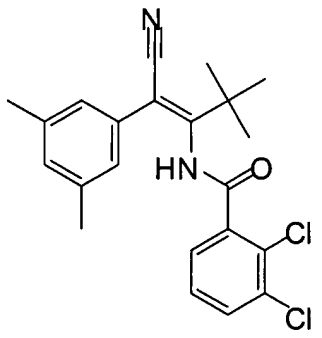
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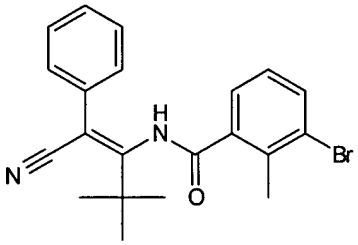
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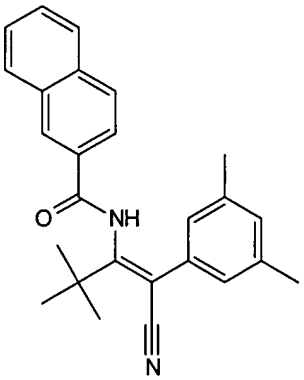
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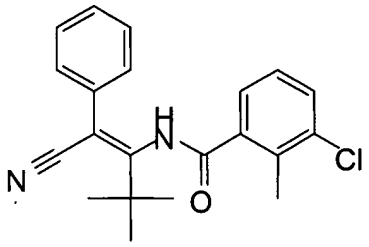
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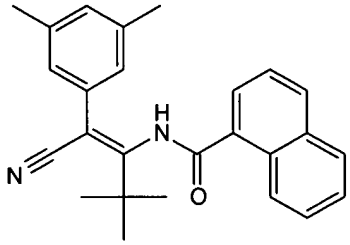
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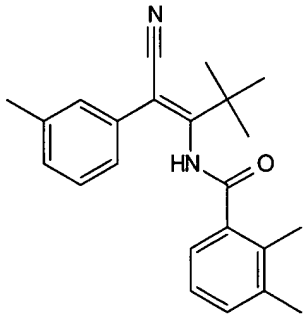
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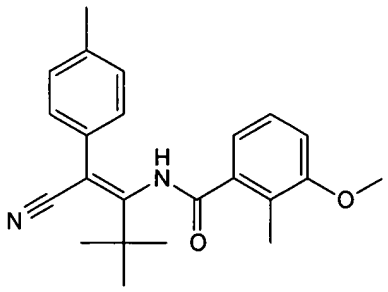

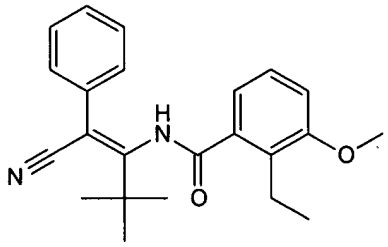

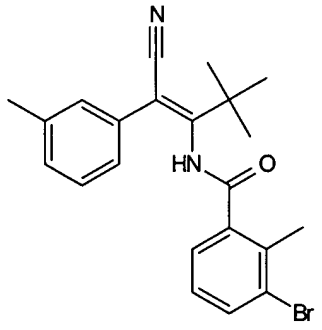

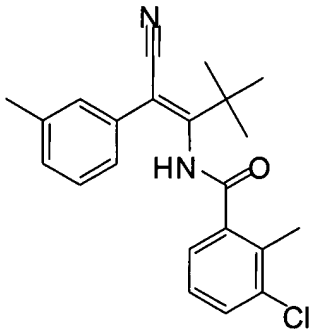
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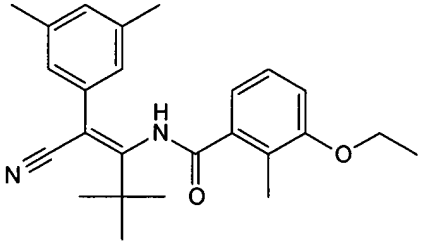
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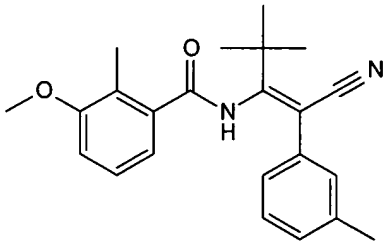
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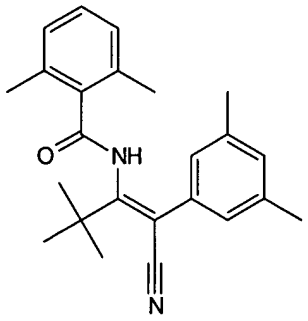
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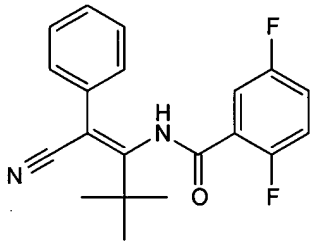
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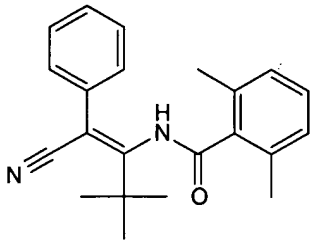
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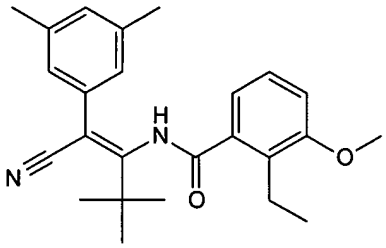
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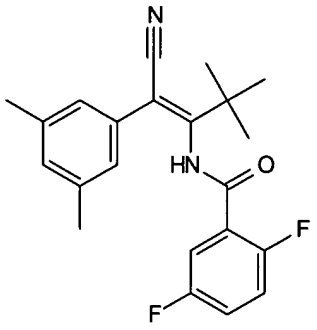
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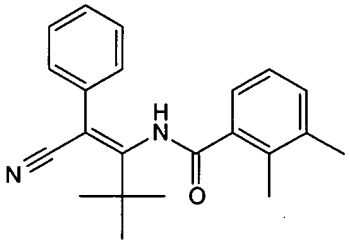
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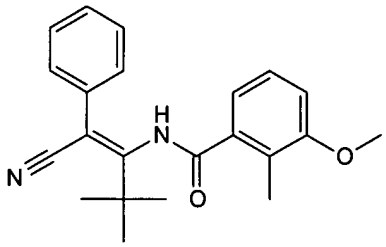
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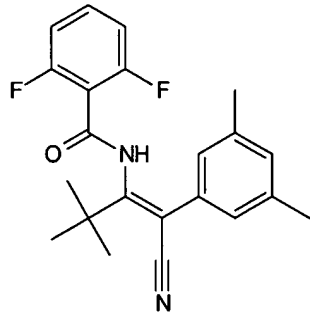
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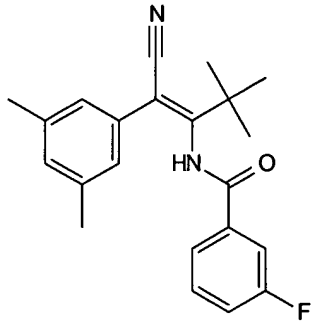
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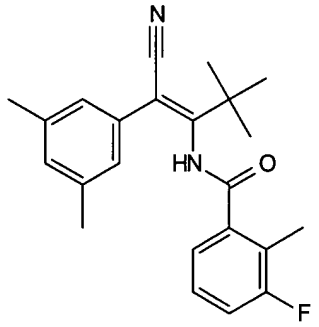
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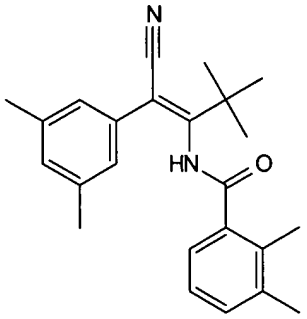
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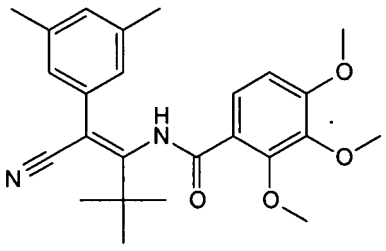
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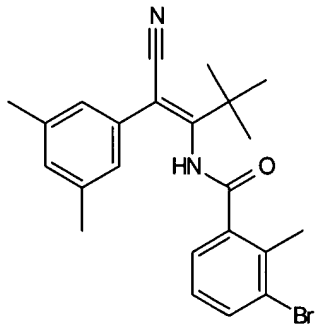
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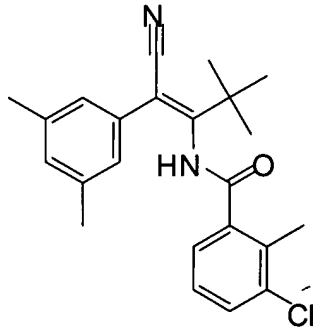
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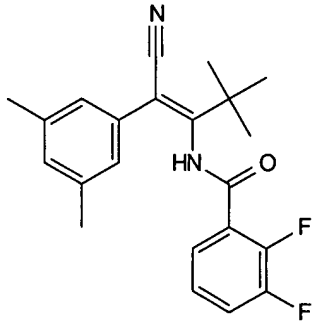
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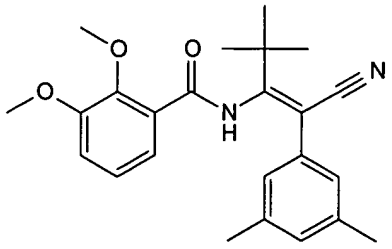
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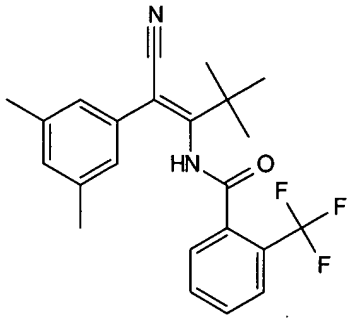
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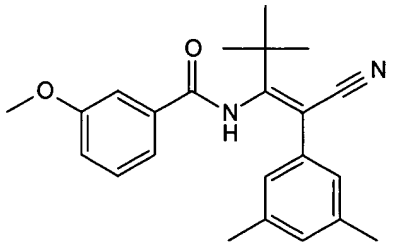
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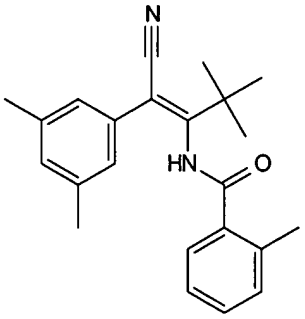
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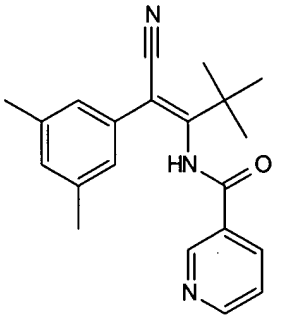
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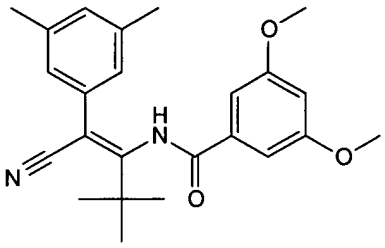
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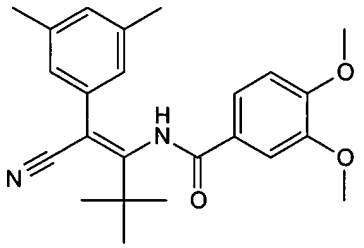

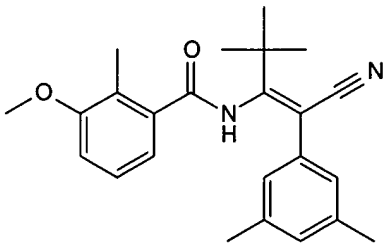

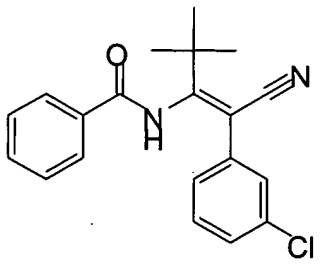

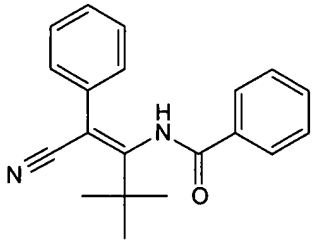

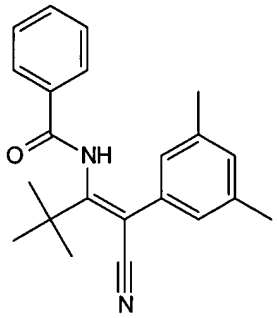

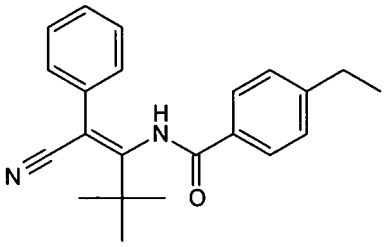

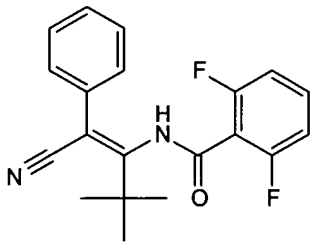

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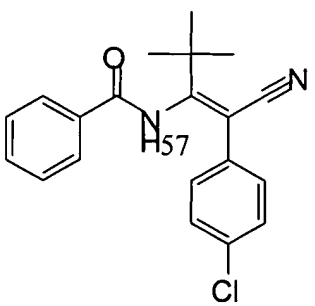

Claims 15-28 (Cancelled)